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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,108

04/12/2006

Ian Faye

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5595

26646 7590 01/10/2008
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EXAMINER

MCGRAW, TREVOR EDWIN

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

01/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,108

Applicant(s)

FAYE ET AL.

Examiner

Trevor McGraw

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-29 and 31-39 is/are pending in the application.
- 4a) Of the above claim(s) 27 and 31-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-26, 28, 29, 36-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Examiner's Comment

Examiner acknowledges the cancellation of Claim 30 and the addition of new Claim 39.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Examiner cannot find supporting disclosure for the limitations of new Claim 39 (i.e. "wherein the spray discharge openings are arranged on the spherical portion of the nozzle body in such a manner, that two approximately semicircular line segments on an outer surface of the spherical portion together intersect center axes of all the spray discharge openings..."). Appropriate clarification and/or correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 39 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The addition of Claim 39 constitutes new matter as Examiner cannot find supporting disclosure for the limitations "wherein the spray discharge openings are arranged on the spherical portion of the nozzle body in such a manner, that two approximately semicircular line segments on an outer surface of the spherical portion together intersect center axes of all the spray discharge openings..." within the Specification as originally filed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19, 20, 22-26, 28, 29, 36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Raskin (US 2,933,259).

In regard to Claims 19, 20, 22-26, 28, 29, 36 and 38, Raskin (US 2,933,259) teaches a dosing device for a liquid fuel having at least one metering device that is configured to meter fuel into a metering conduit and a nozzle body (Figure 1, 2, 3 and 4; Column 2 Line 60-Column 4, Line 70) that adjoins to the metering conduit has different diameter spray discharge openings (21,22) that open into a metering chamber where the nozzle body projects with a spherical portion (Figure 2) at a spray discharge end into a metering chamber having spray discharge openings distributed over the spherical

portion of the nozzle body where the nozzle body is shaped in a hollow cylindrical fashion at an end facing the metering conduit (Figure 1 and 2) and is threadedly engaged with the metering conduit (Figures 1, 2 and 3) where the spray discharge openings have a common intersection point (Figure 2) that is located on a center axis of the nozzle body (Figure 2) and located such that the openings and tilt are asymmetrical with respect to a center axis of the nozzle body (Figure 2). Raskin also teaches where a metering conduit has at least a reduced wall thickness and a reduced wall thickness region along an axial extent (Figure 1, 2, 3 and 4; see also Response to Arguments 35 USC § 102(b) section below) and an air inlet with which a gas can be introduced into a metering conduit (Column 3, Lines 52-67) where the dosing device of Raskin is capable of being adapted to input the fuel into a chemical reformer to recover hydrogen.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 21 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raskin (US 2,933,259) in view of Kappel et al. (US 6,311,950).

In regard to Claims 19, 21 and 37, Raskin discloses the claimed invention except for welding the nozzle body through laser welding to the metering conduit. However, Kappel et al. (US 6,311,950) teaches that it is old and well known in the art to utilize

laser welding as another form of securing and attaching separate pieces of material together in a rigidly fastened manner. Therefore, it would have been obvious to one having ordinary skill in the art at the time the present invention was made attach the nozzle body to the metering conduit of Raskin with the laser welding techniques of Kappel et al. in order to securely fasten two pieces of material together to prevent air gaps.

Response to Arguments

Rejection under 35 USC § 102(b)

Applicant's arguments, see pages 5-6, filed 10/22/2007, with respect to Claims 19-21, 25 and 28-30 have been fully considered and are persuasive. The rejection of Claims 19-21, 25 and 28-30 held under 35 U.S.C. § 102(b) to Ruetsch has been withdrawn in view of Applicant's amendment to Claim 1.

However, Examiner is maintaining the rejection of Claims 19-26, 28, 38 and 39 held under 35 U.S.C. § 102(b) as being anticipated by Raskin. Applicant's arguments filed 10/22/2007 fully considered but they are not persuasive. As stated in the Office Action Correspondence mailed 07/17/2007, Applicant's assertion that the spray discharge openings of Raskin do not open directly into a metering chamber is unfounded. As it can be clearly shown in Figure 4 of Raskin the metering chamber into which fluid flows into from the spray discharge openings 21,22 communicates unobstructed to the metering chamber and at least some fuel travels directly into the

metering chamber passing through 24 unhindered. The openings "21" and "22" provide a direct line of fluid communication into the chamber. Applicant is directed to Figure 4 where there is nothing obstructing the openings of "21" or "22". The gap "24" does not obstruct the path of at least some of the fluid flowing through "21" and "22" which can flow into the metering chamber directly (unobstructed). Examiner also makes note to Applicant that a direct line of communication can be established through the central line axis of the spray discharge openings to the metering chamber.

Examiner brings to Applicant's attention that the Raskin reference teaches the newly added limitations of Claim 1. In viewing Figure 4 of Raskin, one can clearly see that reference number "19" has a number of points of reduced wall thickness, that "reduce" from a thicker section of wall thickness (see just above "21" on both sides of "19") to a transition or necking area into "19". Thus, for the forgoing reasons, Examiner maintains the rejection held under 35 USC § 102(b) to Raskin against Claims 19, -26, 28-30 and 36.

Rejection under 35 USC § 103(a)

Applicant's arguments filed 10/22/200 have been fully considered but they are not persuasive. Applicant has not shown or provided enough evidence as to why the applied rejection of Raskin in view of Kappel et al does not teach the limitations of Claims 21 and 37. Furthermore, one having ordinary skill in the art at the time the present invention was made would recognize the laser welding technique of Kappel et al to be routine and obvious. One having ordinary skill would also recognize a

reasonable expectation of success by using the welding technique of Kappel et al in order to better secure the device of Raskin. Thus, Examiner maintains the rejection of Claims 19, 21 and 37 held under 35 U.S.C. § 103(a).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

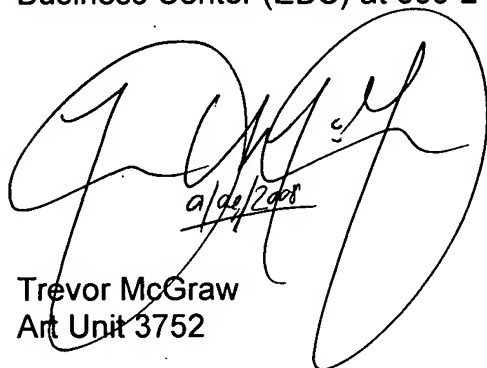
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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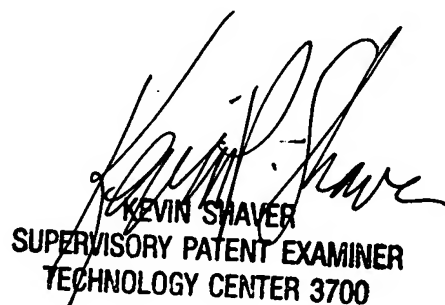
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Handwritten signature of Trevor McGraw, dated 9/26/2008.

Trevor McGraw
Art Unit 3752

TEM



Handwritten signature of Kevin Shaver.

KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700